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CITY OF BELLEVUE, WASHINGTON

ORDINANCE NO. 3292

AN ORDINANCE requiring the installation of smoke detection and fire warning systems and other fire and life safety equipment in certain high-rise structures constructed pursuant to building permits issued under the building codes in effect prior to the effective date of Ordinance No. 2929; amending Ordinance No. 2929; and adding a new Section 23.10.119 to the Bellevue City Code.

WHEREAS, the provisions of the 1979 Uniform Building Code as adopted by Ordinance No. 2929 currently apply to buildings for which building permits were issued after the effective date of Ordinance No. 2929; and

WHEREAS, fire and life safety hazards exist in certain high-rise buildings in the City constructed under the provisions of prior Codes, which hazards are a serious threat to the safety of persons and property; and

WHEREAS, it is therefore necessary that certain provisions of the 1979 Uniform Building Code be made retroactively applicable to certain high-rise buildings located in the City of Bellevue which were constructed pursuant to building permits issued under the building codes in effect prior to the effective date of Ordinance No. 2929; now, therefore,

THE CITY COUNCIL OF THE CITY OF BELLEVUE, WASHINGTON, DOES ORDAIN AS FOLLOWS:

Section 1. A new Section 23.10.119 is hereby added to the Bellevue City Code, to read as follows:

23.10.119. Warning, alarm and safety systems in certain high-rise occupancies.

- A. This Section shall apply to every existing building having floors used for human occupancy located more than 75 feet above the lowest level of fire department vehicle access and not protected throughout by an automatic sprinkler system. All such buildings shall be equipped as follows:

1. Smoke detectors shall be installed:

- a. In every mechanical equipment, electrical,

transformer, telephone equipment, elevator machine or similar room.

- b. In the main return and exhaust air plenum of each air-conditioning system and located in a serviceable area downstream of the last duct connection.
 - c. At each connection to a vertical duct or riser serving two or more stories from a return-air duct or plenum of an air-conditioning system.
 - d. Exceptions:
 - (1) Where heat pumps are provided as the primary means of heating and air-conditioning of office spaces, smoke detector coverage of one for each 900 square feet throughout the plenum area may be provided in lieu of providing a detector at each heat pump unit.
 - (2) The use of heat detectors may be approved by the Fire Marshal where the characteristics of the location would make heat sensing more desirable.
 - e. The actuation of any detector required by this Section shall operate the voice alarm system and shall place into operation all equipment necessary to prevent the recirculation of smoke.
- 2. A manual fire alarm system (pull boxes) shall be installed in accordance with U.B.C. Standard No. 18-1 (1979 edition).
 - 3. Alarm and Communication Systems. The alarm and communication systems shall be designed and installed so that damage to any terminal unit or speaker will not render more than one zone of the system inoperative.

Three communication systems shall be provided as follows:

- a. Voice alarm system. The operation of any smoke detector, sprinkler water flow device or manual fire alarm station shall automatically sound an alert signal to the desired areas followed by voice instructions giving appropriate information and direction to the occupants.

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The central control station shall contain controls for the voice alarm system so that a selective or general voice alarm may be manually initiated.

The system shall be supervised to cause the activation of an audible trouble signal in the central control station upon interruption or failure of the audiopath including amplifiers, speaker wiring, switches and electrical contacts and shall detect opens, shorts and grounds which might impair the function of the system.

The alarm shall be capable of being heard clearly by all occupants within the building.

- b. Public address system. A public address communication system which can be heard clearly by all occupants of the building shall operate from the central control station. It shall interrupt any voice alarm system alert or voice message and such alert or message shall not be restored except by manual activation from the central control station. It shall be established on a selective and general basis to the following terminal areas:

- (1) Elevators, except where it would be necessary to extend additional cable to the cars.
- (2) Elevator lobbies.
- (3) Corridors.
- (4) Exit stairways.
- (5) Rooms and tenant spaces exceeding 1,000 square feet in area.
- (6) Places of assembly.

- c. Fire department communication system. Except where portable fire department radio equipment is capable of adequately serving between the central control station and all portions of the building and the fire communications center, a two-way sound-powered fire department communications system shall be provided for fire department use. It shall operate between the central control station and every elevator, elevator lobby and entry to every exit stairway.

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- (1) Exception: Provision of facilities within elevator cars may be deleted where it would be necessary to extend additional cable to the cars.
- d. The voice alarm and public address systems may be combined into one system.
- 4. Central Control Station. A central control station for fire department operations shall be provided in a location approved by the fire department. It shall contain:
 - a. The voice alarm and public address system panels.
 - b. Facilities for the fire department communications system, if required.
 - c. Fire detection and alarm system annunciator panels.
 - d. Status indicator and duplicate commanding switch for elevators.
 - e. Status indicators and controls for air-handling systems, except where such systems serve a single fire area.
 - f. Controls for unlocking all stairway doors simultaneously.
 - g. A telephone for fire department use with controlled access to the public telephone system.
- 5. Smoke Control. A mechanical smoke evacuation and/or control system approved by the Fire Marshal.
- 6. Elevators. Each elevator lobby other than on the main floor shall be provided with an approved smoke detector located on the lobby ceiling. When the detector is activated, elevator doors shall not open and all cars serving that lobby are to return to the main floor and be under manual control only. The smoke detector is to operate before the optical density reaches 0.03 per foot. The detector may serve to close lobby doors and need not be on an independent fire alarm circuit.

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7. Emergency electrical system(s) shall be provided for:
 - a. Alarm and communication systems
 - b. Fire detection sensors and annunciators
 - c. Exit signs and exit illumination
 - d. Elevator car lighting
 - e. Central control station illumination
8. Stairway Numbering System. An approved sign shall be located at each floor level landing in all stairways. The sign shall indicate the floor level, the terminus of the top and bottom of the stairway and the identification of the stairway. The sign shall be located approximately 5 feet above the floor landing in a position which is readily visible when the door is in the open or closed position. Signs shall comply with the requirements of U.B.C. Standard No. 33-2 (1979 edition).
9. Automatic Sprinkler System. An automatic fire sprinkler system shall be installed throughout every story having an assembly occupancy with an occupant load of more than 100 persons when such occupancy is open to the general public. The sprinkler system shall be designed in accordance with the provisions of U.B.C. Standard No. 38-1 (1979 edition) and the following:
 - a. Shutoff valves and a water flow device shall be provided for each floor.
 - b. Existing standpipe systems can be intertied with existing sprinkler systems in order to convey water to upper floors.
- B. This section shall not apply to any building described in subsection A. of this Section if, prior to the effective date of this ordinance, the owner of such building has entered into a binding written agreement with the City to upgrade the building within the time period set forth in subsection C. of this Section by installing fire and life safety materials and equipment at least equivalent to those which are required by this Section.
- C. Compliance Period. All materials and equipment required by this Section shall be installed and in operation not later

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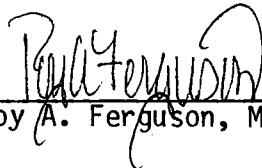
than two (2) years after the effective date of this ordinance.

- D. The provisions of this Section shall be administered and enforced by the Fire Chief.

Section 2. This ordinance shall be published by posting it in the three official posting places of the City, and shall take effect and be in force thirty (30) days after the date of posting.

PASSED by the City Council this 19th day of September 1983, and signed in authentication of its passage this Sept day of 1983, 1983.

(SEAL):



Roy A. Ferguson, Mayor


Approved as to form:

Linda M. Youngs, City Attorney



Richards L. Andrews, Assistant City Attorney

Attest:



Marie K. O'Connell, City Clerk

Published